Practice Tips: Picture This



USEFUL THINGS TO TRY: Practice with your teacher or at home with a parent.

1. Start simple! This event requires students to draw simple images quickly. The drawings do not need to be great art, but they do need to be easy to interpret! Have your students talk about the easiest way to draw the simple nouns in the table below using one simple picture.

Arm	Mountain	Leaf	Мар	Liquid
Skeleton	Earth	Corn	Moon	Ice

2. Go from general to specific by using arrows. Science Olympiad rules prohibit letters or numbers, but they *do allow* arrows, so a picture of an arm easily becomes an elbow by adding an arrow pointing to this joint. The word pairs below are examples – students can easily draw a simple picture for the word on the *left*, and adding an arrow makes it *much* easier to get at the harder word on the *right*. Try it!

Arm	\rightarrow	Elbow	Earth	\rightarrow	Continent	Light bulb	\rightarrow	Filament
Sun	\rightarrow	Planet	Earth	\rightarrow	Mantle	Hand	\rightarrow	Thumb
Tree	\rightarrow	Root	Volcano	\rightarrow	Lava	Duck	\rightarrow	Adaptation
Ant	\rightarrow	Thorax	Volcano	\rightarrow	Eruption	Tiger	\rightarrow	Camouflage

3. Have your students come up with several "container words" that could help them lead their partners towards more complicated ideas – ideas that are abstract and hard to show with a simple picture. Once they guess the "container," see if adding new features or a second picture gets them to the more abstract concept. Can they agree on a simple symbol for each example "container"?

Container Words	Abstract Concepts related to Container				
Sun	Orbit	Venus	Sunspot	Eclipse	Revolution
Leaf	Sap	Deciduous	Compost	Carbon Dioxide	Photosynthesis
Triangle	Ramp	Perimeter	Geometry	Symmetrical	Equilateral
Brain	Neuron	Theory	Language	Intelligence	Spinal cord
Thermometer	Freeze	Boil	Evaporate	Warm Blooded	Boiling Point



USEFUL WEBSITES TO SEE: We verified these in January, 2020.

Example Science Vocabulary Lists:

https://www.kerrvilleisd.net/site/Default.aspx?PageID=2611

(Vocabulary lists and cards)

Concept map ideas:

http://www2.scholastic.com/content/collateral resources/pdf/r/reading bestpractices vocabulary_tr_AllConcept.pdf

RULE CLARIFICATION:

These apply to the DeKalb Olympiad.

1. With regard to rule #5, we also allow the current "guesser" to verbally pass.

CONCEPT MAPS FOR VOCABULARY GROWTH:

Concept Maps can help students learn new vocabulary and see how new concepts link to simpler ideas. Below is an example of a Concept Map building on the idea of "sickness." The sick person is pretty easy to draw, then I extended it using the "Container Word" idea from above:

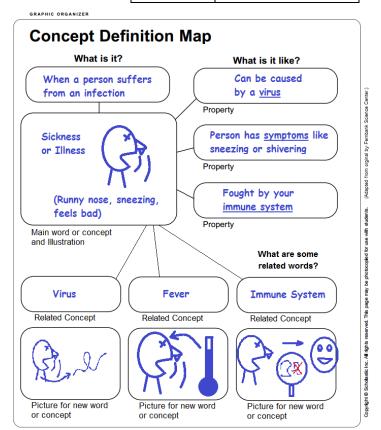
The idea is to find a simple, standard picture that all participants can draw quickly. Build from this simple picture to

show harder ideas!

Use the blank sheets on the following page. Think of some good basic words, then have the students come up with the harder concepts that are harder to draw directly.

My last picture for the "Immune System" is supposed to show a magnifying glass that lets you see a white blood cell eating a virus. Not very good? See if your team can do better!

Abstract Concepts related to Container
Virus Symptom
Fever
Immune System



Picture for new word

or concept

Picture for new word

or concept

Picture for new word

or concept

Set #1	Set #2	
Natural resource	Atom	
Recycle	Photosynthesis	
Heat energy	Chloroplast	
Regions of Georgia	Electric circuit	
Magnetic field	Evaporation	
Friction	Motion	
Insulation	Repel	
Recycle	Fossil	
Water cycle	Conductor	
Constellation	Habitat	
Moon phase	Earthquake	
Reflection	Concave lens	
Vibration	Simple machine	
Plant roots	Virus	
Inclined plane	Vertebrate	
Tornado	Recycle	
Plant cell	Texture	
Thermometer	Soil	
Wavelength	Food chain	
Pollination	Force	
Migration	Vibration	